

SUPPORT FOR THE AMENDMENTS

Claims 1 and 7 have been amended.

Support for the amendment to Claims 1 and 7 is provided for by page 5, lines 15-17.

No new matter has been entered by the present amendments.

REMARKS

Claims 1-24 are pending in the present application.

The rejection of Claims 1-24 under 35 U.S.C. §103(a) over Okawa et al (US 2002/0022062) is traversed.

In the outstanding Office Action the Examiner has maintained his allegation that Okawa et al render the claimed invention obvious. In maintaining the rejection over Okawa et al, the Examiner states that he has fully considered the arguments filed on January 31, 2008, but the “discussion of the individual examples in Okawa et al is not convincing in an attempt to distinguish applicant’s claims from the disclosure of Okawa et al since a reference is not limited to specific embodiments or disclosures but rather is relied upon for all that it discloses.”

This statement by the Examiner indicates that previously filed arguments were not consider in their entirety. Specifically, page 8 of the response filed on January 31, 2008, discussed the deficiencies in the over-breadth of Okawa et al, page 9 of this response qualified the context of the Examples, and pages 9-11 of this response applied the Examples and distinguished the disclosure and examples of Okawa et al with the claimed invention. Further, on page 10 of the response filed on January 31, 2008, Applicants specifically argued that the fact that the ratio of (b)/(a) is less than 5 to 30 times for the presence of a hydroxycarboxylic acid relative to the weight content of ingredient (a) appears to be a critical defect in the disclosure of Okawa et al. To this end, Applicants referenced Tables 1 and 2 of the present application, which clearly show the criticality of the lower threshold limit of 5 (see pages 9 and 10 of the present specification), which represents the comparison to the closest examples in Okawa et al.

Again, setting aside the Examiner's allegation that "Flavor Holder" produced by T. Hasegawa Co., Ltd. used in Example 5 of the present application is the same as the coffee bean extract employed by Okawa et al in Examples 3-11, the Examiner alleges that Okawa et al disclose all the concentrations and ratios set forth in Claim 1 (see pages 2-4 of the Office Action mailed October 31, 2007). Applicants disagree with this position for several reasons.

First, the Examiner cites paragraphs [0014]-[0015] and alleges that "the coffee bean extract contains from 0.3 to 3.6% chlorogenic acid, which comprises isochlorogenic acid." What is not clear is whether the Examiner is cited the present application or Okawa et al. In either event, neither the present application nor Okawa et al disclose this purported concentration of chlorogenic acid either explicitly or inherently. Accordingly, this citation by the Examiner is misplaced and no attempt is made by the Examiner in the Office Action mailed March 25, 2008 to remedy this misplaced citation.

Second, Okawa et al fail to specifically disclose or suggest any concentrations of chlorogenic acids or the weight ratio of isochlorogenic acids to the chlorogenic acid mixture. In paragraph [0015], Okawa et al disclose the contents of an extract of coffee beans and in so doing disclose that the chlorogenic acid to caffeine weight ratio of 2 or greater. Certainly this disclosure is overbroad and insufficient to permit the artisan to envisage the range as claimed with sufficient specificity, much less provide any motivation or reason to select the same couple with a reasonable expectation of beneficial and superior results obtained by the present invention.

At best, looking at the Examples, it is possible that Okawa et al disclose compositions meeting limitation (a) of Claim 1 (and Claim 7) to the extent that the amount of chlorogenic acids and, perhaps (assuming, *arguendo*, that the Flavor Holder in the present application is the same as that disclosed by Okawa et al), the weight ratio of isochlorogenic acids to the chlorogenic acid mixture. But, Applicants again remind the Examiner that Okawa et al fail to

disclose *all the requirements of limitation (b)* of Claim 1 (and Claim 7). Specifically, Okawa et al fail to disclose or suggest that presence of a hydroxycarboxylic acid in a quantity ranging from 5 to 15 times the weight content of ingredient (a).

In this regard, it is again submitted that the *disclosure* of Okawa et al fails to provide any reasonable disclosure to lead the artisan to the presence of a hydroxycarboxylic acid in a quantity ranging from 5 to 15 times the weight content of ingredient (a). This deficiency is further manifest by looking at the Examples of Okawa et al.

In Table 1, Okawa et al provides a disclosure of four coffee bean extracts. This table is informative and can be completed to add columns corresponding to (i) the relative amount of the chlorogenic acid/caffeine mixture that is chlorogenic acids (calculated by converting the ratio to a percentage), and (ii) the amount of chlorogenic acids in the coffee bean extract. This expanded table would appear as follows:

	Dry solid content (%)	Chlorogenic acid/caffeine contained in Coffee Bean Extract		Percent (%) Chlorogenic acid in chlorogenic acid/caffeine component	Percent (%) Chlorogenic acid in Coffee Bean Extract
		Total (%)	Ratio		
Coffee Bean Extract 1	71	51	1.2	54.5	27.8
Coffee Bean Extract 2	58	39	2.5	71.4	27.8
Coffee Bean Extract 3	53	34	4.8	82.8	28.1
Coffee Bean Extract 4	48	29	28.0	96.6	28.0

Of the foregoing, only Coffee Bean Extract 3 (identified as “Flavor Holder FH1041”) was used in admixture with a hydroxycarboxylic acid. Looking at Examples 3, 4, 6, and 7, which utilize Coffee Bean Extract 3, the following table is provided which shows the amounts of the ingredients of interest in these Examples:

	Citric Acid (%)	Ascorbic Acid (%)	Coffee Bean Extract 3 (%)
Example 3	2	--	3.6
Example 4	1.5	2.5	3.6
Example 6	0.05	--	1.8
Example 7	0.3	0.03	0.36

Adding columns to the foregoing table for the relative ratios of component (b)/(a), the following result is obtained:

	(b)		Coffee Bean Extract 3 (%)	(a)	(b)/(a)
	Citric Acid (%)	Ascorbic Acid (%)		Amount of chlorogenic acids (%)	
Example 3	2	--	3.6	1.01	1.98
Example 4	1.5	2.5	3.6	1.01	3.96
Example 6	0.05	--	1.8	0.50	0.10
Example 7	0.3	0.03	0.36	0.10	2.97

The fact that the ratio of (b)/(a) is less than 5 to 15 times for the presence of a hydroxycarboxylic acid relative to the weight content of ingredient (a) appears to be a critical defect in the disclosure of Okawa et al. Notably, from the foregoing, when the relevant disclosure of Okawa et al is analyzed, the only ratios of (b)/(a) are below the lower threshold limit of the presently claimed invention.

The foregoing Examples in Okawa et al may be taken as the closest art for sake of comparison and a demonstration of superior results. Thus, looking at Tables 1 and 2 of the present application, Applicants submit that the criticality of the lower threshold limit of 5 is clearly demonstrated (see pages 9 and 10 of the present specification). Most importantly, when looking at Example 5 (coffee bean extract example) in Table 1 and comparing this example to Comparative Example 5 (coffee bean extract comparative example) in Table 2, it is readily observed that when the (b)/(a) ratio is below the claimed threshold the resultant

beverages have a lower brix (mass ratio of dissolved sucrose to water in the liquid), and a poorer taste and dreg formation.

Further, as is evident from page 5, lines 20-24 of the present specification, the sufficient improvement in astringency or bitterness brought by the hydroxycarboxylic acid(s) is clearly acknowledgeable when the beverage takes the specifically claimed range of ratios of (b)/(a). Whereas such improvement is not possible at any other ratio of (b)/(a). The claimed range of ratios of (b)/(a) also enables the beverage to maintain its acid flavor fitting for long-lasting drinking.

Even further, dreg formation is significantly reduced when the ratio of (b)/(a) is greater than 5 as evidenced by Tables 1 and 2. This advantageous effect on stability is not disclosed or suggested in Okawa et al. As such, absent Applicant's disclosure the artisan would not be led to expect the superior results flowing from the specifically claimed range of ratios of (b)/(a).

Applicants submit that *arguendo* the Examiner has properly established a *prima facie* case of obviousness exists; the Examiner is reminded that Applicants can rebut a *prima facie* case of obviousness based on overlapping ranges by showing the criticality of the claimed range. "The law is replete with cases in which the difference between the claimed invention and the prior art is some range or other variable within the claims... In such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range." *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). Applicants submit that this burden has been met and that for the reasons given above, this ground of rejection should be withdrawn.

Nonetheless, it is again submitted that only Examples 7-9 of Okawa et al relate to beverages. The invention of Claims 1 and 7 relate to beverages which contain 30 to 99.7 % by weight of water. Regardless of whether the preamble limitation "beverage" is given

weight, ingredient (c) must still be met by the disclosure of Okawa et al. To this end, the *specification* of Okawa et al provides no disclosure relating to the amount of water permitted. At best, it could be argued that Examples 6-9 and 11 of Okawa et al meet limitation (c) with respect to the water content. However, as stated above, Examples 6 and 7 of Okawa et al fail to meet the limitation of the (b)/(a) ratio and Examples 8 and 11 of Okawa et al fail to include a hydroxycarboxylic acid. Therefore, Examples 6-8 and 11 of Okawa et al fail to meet limitation (b) in the claimed invention.

With respect to Example 9 of Okawa et al, Vitamin C (ascorbic acid) is contained in an amount of 2000 mg and Coffee Bean Extract 3 (identified as “Flavor Holder FH1041”) in an amount of 360 mg. Even if this Example meets the limitation with respect to the ratio between ingredient (a) and the hydroxycarboxylic acid in ingredient (b), Example 9 of Okawa et al does not contain either a vegetable-derived flavor substance or a fruit-derived flavor substance, much less in the claimed amendments, as required by Claims 1 and 7.

In view of the foregoing, Applicants submit that Okawa et al do not render the presently claimed invention obvious. Specifically, Okawa et al fails to disclose or suggest all the limitations of the claimed invention (e.g., fails to disclose all the limitations of ingredient (b) appearing Claims 1 and 7).

Applicants request withdrawal of this ground of rejection.

The rejection of Claims 1-24 under 35 U.S.C. §103(a) over Suzuki et al (EP 1 186 297) is traversed.

Applicants submit that Suzuki et al is equally as vague of a disclosure as Okawa et al. In other words, Suzuki et al is, at best, generic to the claimed invention. However, there is no specific disclosure or suggestion in Suzuki et al of the composition as defined in the claimed invention, much less any appreciation for the criticality of the ratio of (b)/(a). Suzuki et al merely describes physiological effects of its beverage and thus offers no disclosure or suggestion with respect to taste or stability of a beverage. As mentioned above, a beverage is generally required to have many properties designed to generate good taste and long-lasting stability. There a large number of factors need to control such properties. The difference between the claimed invention and the disclosure of Suzuki et al (i.e., the range of ratios of (b)/(a)) does not represent mere optimization.

Indeed, above Applicants have clearly evidenced the criticality of the claimed ratios of (b)/(a). Again, as is evident from page 5, lines 20-24 of the present specification, the sufficient improvement in astringency or bitterness brought by the hydroxycarboxylic acid(s) is clearly acknowledgeable when the beverage takes the specifically claimed range of ratios of (b)/(a). Whereas such improvement is not possible at any other ratio of (b)/(a). The claimed range of ratios of (b)/(a) also enables the beverage to maintain its acid flavor fitting for long-lasting drinking.

Even further, dreg formation is significantly reduced when the ratio of (b)/(a) is greater than 5 as evidenced by Tables 1 and 2. This advantageous effect on stability is not disclosed or suggested in Suzuki et al. As such, absent Applicant's disclosure the artisan would not be led to expect the superior results flowing from the specifically claimed range of ratios of (b)/(a).

Applicants request withdrawal of this ground of rejection.

Applicants submit that the present application is now in condition for allowance.

Early notification of such action is earnestly solicited.

Respectfully submitted,

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